RESEARCH, DEVELOPMENT & TECHNOLOGY TRANSFER
QUARTERLY PROGRESS REPORT

Wisconsin Department of Transportation
DT1241 02/2011

INSTRUCTIONS:
Research project investigators and/or project managers should complete a quarterly progress report (QPR) for each calendar quarter during which the projects are active.

WisDOT research program category: ☐ Policy research ☒ Wisconsin Highway Research Program ☐ Other ☐ Pooled fund TPF#		Report period year: 2014 ☒ Quarter 1 (Jan 1 – Mar 31) ☐ Quarter 2 (Apr 1 – Jun 30) ☐ Quarter 3 (Jul 1 – Sep 30) ☐ Quarter 4 (Oct 1 – Dec 31)
Project title: Performance and Design of Bridge Approach Panels in Wisconsin		
Project investigator: Brent Phares	Phone: 515-294-5879	E-mail: bphares@iastate.edu
Administrative contact: Sharon Prochnow	Phone: 515-294-3781	E-mail: prochnow@iastate.edu
WisDOT contact: Barry Paye	Phone: 920-492-4116	E-mail: Barry.Paye@dot.wi.gov
WisDOT project ID: 0092-14-04	Other project ID:	Project start date: 8/13/2013
Original end date: 2/12/2015	Current end date: 2/12/2015	Number of extensions: 0

Project schedule status:
☒ On schedule ☐ On revised schedule ☐ Ahead of schedule ☐ Behind schedule

Project budget status:

Total Project Budget	Expenditures Current Quarter	Total Expenditures	% Funds Expended	% Work Completed
$79,974.00	$323.46	$1,741.08	2%	3%

Project description:

It is widely recognized that approach slabs/panels play a critical role in the highway system. These panels must provide a smooth transition from mainline pavements to bridges. Beyond being responsible for the majority of roughness typically associated with bridges, these panels must be able to effectively accommodate thermal expansion and contraction of both the bridge and the mainline pavement. Improperly designed/constructed approach panels tend to lead to the formation of a bump at the end of the bridge. The bump is not generally a significant safety problem; rather it can be an expensive maintenance issue. It is very common to attach the approach slab to the bridge via a reinforcing bar extending from the paving notch. By attaching the approach slab to the bridge, one is able to move an expansion joint away from the critical area at the abutment; this promotes drainage of roadway water away from the bridge area. However, one detail that is critical to the long-term, effective performance of approach slabs is that they must allow for free and full expansion and contraction of the surrounding elements. In general, this is accomplished by detailing one or more expansion joints.

The objectives of this work are:

- Review and analyze current approach slab performance
- Review and analyze the national state of the practice with respect to approach slabs
- Determine what other currently adopted approach slab designs may be applicable to Wisconsin
- Determine if there is a problem with current approach slab performance and, if so, will new designs will improve performance

- Determine if three expansion joints are need to provide thermal expansion/contraction relief or if one joint will be sufficient
- Improve the constructability and performance of approach slabs

Progress this quarter (includes meetings, work plan status, contract status, significant progress, etc.):

Information collection of the current state-of-the-practice continued with a specific focus on like-climate states. The information was summarized and presented to the TOC at a face to face meeting in February. Additionally, information has been gathered of bridges identified by the TOC as potential candidates for field observations and testing.

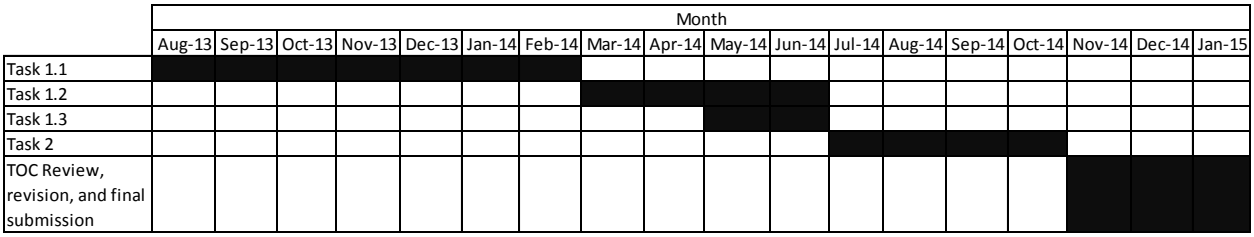
Anticipated work next quarter:

Work will continue in preparation for the field and performance review (Task 1.2). It is anticipated that the field work will begin early to mid-summer once final arrangements have been made and approval from the TOC has been received.

Circumstances affecting project or budget:

None.

Attach / insert Gantt chart and other project documentation



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Staff receiving QPR:	Date received:
Staff approving QPR:	Date approved: